Volume 149 December 1984

CONTENTS

Internally resonant surface waves in a circular cylinder. JOHN W. MILES *page* 1

Resonantly forced surface waves in a circular cylinder. JOHN W. MILES 15

Hydrodynamics of heat transfer associated with condensation on a moving drop: solutions for intermediate Reynolds numbers. T. SUNDARARAJAN and P. S. AYYASWAMY 33

Integral-equations solution of potential flow past a porous body of arbitrary shape. HENRY POWER, GUILLERMO MIRANDA and VIANEY VILLAMIZAR 59

Starting flow for an obstacle moving transversely in a rapidly rotating fluid. E. R. JOHNSON 71

Stream meanders on a smooth hydrophobic surface. TAKEO NAKAGAWA and JOHN C. SCOTT 89

Cellular patterns with boundary forcing. S. ZALESKI 101

Aerodynamic coefficients and longitudinal stability of sail aerofoils. A. D. SNEYD 127

Turbulent dispersion from a steady two-dimensional horizontal source. R. I. NOKES, A. J. MCNULTY and I. R. WOOD 147

Sound generation and upstream influence due to instability waves interacting with non-uniform mean flows. M. E. GOLDSTEIN 161

Experimental determination of the three-dimensional vorticity field in the boundary-layer transition process. D. R. WILLIAMS, H. FASEL and F. R. HAMA 179

New integral relations for gravity waves of finite amplitude. M. S. LONGUET-HIGGINS 205

Inertial impaction of heavy molecules. J. FERNANDEZ DE LA MORA, B. L. HALPERN and J. A. WILSON 217

Wall effects on a sphere translating at constant velocity. A. AMBARI, B. GAUTHIER-MANUEL and E. GUYON 235

The effects of turbulence on the mean flow past two-dimensional rectangular cylinders. YASUHARU NAKAMURA and YUJI OHYA 255

Particle motion in Stokes flow near a plane fluid–fluid interface. Part 2. Linear shear and axisymmetric straining flows. S. M. YANG and L. G. LEAL 275

On interfacial solitary waves over slowly varying topography. KARL R. HELFRICH, W. K. MELVILLE and JOHN W. MILES 305

The structure of a turbulent spot in Blasius flow. J. BARROW, F. H. BARNES and M. A. S. ROSS 319

On a class of compressible laminar boundary-layer flows and the solution behaviour near separation. ANTONIOS LIAKOPOULOS and CHEN-CHI HSU 339

The interaction region of a turbulent plane jet. L. W. B. Browne, R. A. Antonia and A. J. Chambers 355

Model calculations of the ionization relaxation and radiative cooling in unsteady krypton and xenon shock waves. D. Krauss-Varban and F. Demmig 375

Characteristics of a double-diffusive interface at high density stability ratios. T. A. Newell 385

A linearized unsteady aerodynamic analysis for transonic cascades. Joseph M. Verdon and Joseph R. Caspar 403

A seventeenth-order series expanison for the solitary wave. Stephen A. Pennell and C. S. Su 431

Active cancellation of pure tones in an excited jet. H. Arbey and J. E. Ffowcs-Williams 445

Nonlinear stability of Newtonian fibres. William W. Schulz, Abdelfattah Zebib, Stephen H. Davis and Yee Lee 455

Studies on boundary-layer separation in unsteady flows using an integral method. Michinori Matsushita, Shigeru Murata and Teruaki Akamatsu 477

Review

Continuum Electromechanics, by J. R. Melcher 502

Index to Volume 149 504